

## Fibers & Textiles

|                     |                             |  |
|---------------------|-----------------------------|--|
| Fibers              |                             | Poly(p-phenylene-2,6-benzobisoxazole)(PBO) Fiber :<br><u>ZYLON®</u><br>*** <u>TECHNICAL INFORMATION</u><br><u>Dyneema®</u> : Ultra-high-strength<br>Polyethylene Fiber<br>Heat & Chemical resistant<br>fiber: <u>PROCON®</u><br>Heat generating fiber: <u>eks®</u> |
| Yarns & Fabrics     | Cross-linked Acrylate Fiber | <u>EKS®</u>  |
|                     | Polyester filament Yarns    | <u>SPECIALITY FILAMENT</u><br>*** <u>HEIM®</u><br>*** <u>ESTER MAGIC®</u>  |
|                     | Polyester fabric            | <u>ESTER®</u><br><u>ROSALLY®</u><br><u>EKSLIVE®</u>  |
|                     | Nylon Fabric                | <u>NFDC</u>  |
|                     | Recycled polyester          | <u>ECHORCLUB®</u>  |
|                     | Composite fabrics           | <u>SOCIO®</u>  |
|                     | Promix                      | <u>CHINON®</u>   |
|                     | Knit fabrics                | <u>Spectar®</u><br><u>Wintima®</u><br><u>Feeji®</u>  |
|                     | Fabrics for men's shirting  | <u>Excellent Fabrics</u><br>***For Dress Shirting<br>***For Thoub Cloth  |
| Finishing, Blending |                             | <u>TOYOBO'S HYGIENE REVOLUTION</u>   |
| Series              |                             | <u>TOYOBO's SIENCE IN COMFORT</u>  |
| Brand               |                             | <u>TOYOBO Textile Brand list</u>   |

siro

### Fibers & Textiles

Fibers

Yarns &amp; Fabrics

Finishing, Blending

Series

Brand

### Functional & Biomedical Products

Biochemicals

Pharmaceutical Products

Chemical Filter Series

Resins

Engineering Plastics

Shock Absorbing Device

Materials for Printing

Industrial Products

### Films

Films

### Others

Simulation CG &amp; Apparel

R &amp; D

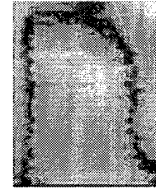
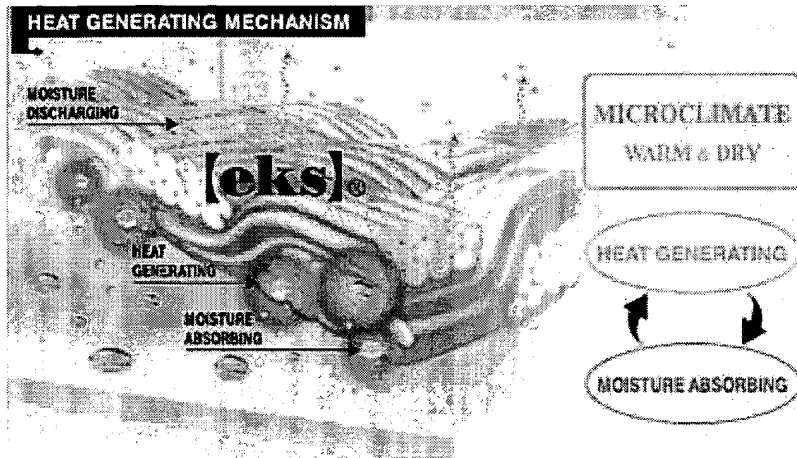
# AT LAST...

## A FIBER THAT GENERATES HEAT!

Existing fibers used for cold weather wear/gear simply insulate with its big bulk. They do not actually create heat to the body.

[eks]® is a perfectly NEW fiber based on a different design concept. [eks]® generates heat.

It absorbs water quickly and keeps you dry and comfortable.



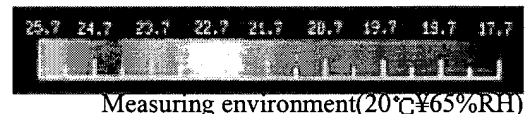
**[eks]®**

Thermography of a water saturated knit fabric that is made with 30% [eks]® fibers.



**COTTON**

Thermography of a water saturated knit fabric made from 100% cotton.



[eks] is a registered trademark of TOYOBO in Japan.

HEAT GENERATING FIBER

TOYOBO HOME PAGE

**[eks]**®

Top

Heat  
GeneratingMoisture  
Absorbing

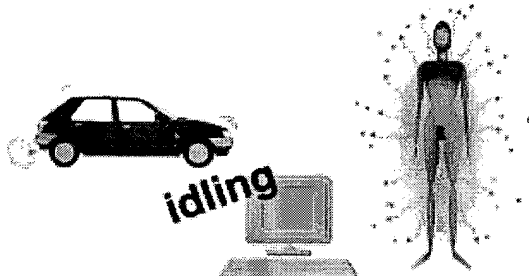
Deodorization

Temperature and  
Humidity in Micro  
Climate

Contact Us

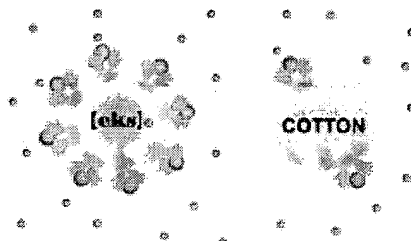
**How does [eks]® generate HEAT?**

Remember the last time you got an injection at the doctor's office; the cold feeling you experienced when the alcohol disinfectant was applied to your body. That cold feeling is a result of the heat evaporation phenomenon. When alcohol evaporates, it becomes moisture. The moisture takes the heat away from the skin. [eks]® adopts the opposite reaction to heat evaporation. This is called "ADSORP-TION HEAT". [eks]® absorbs perspiration and supplies heat to the body to help keep you comfortably warm.



[eks]® generates heat even when you are not perspiring. Even when a person is not exercising, his/her body will perspire. Automobiles and PC's do a similar thing, they idle so they are ready to work at anytime.

So, [eks]® will always give you heat.

**[Concept of HEAT GENERATING SYSTEM]**

Better than cotton, [eks]® has many more hands to catch the water(Hydrophilic group)

HEAT GENERATING FIBER

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**[eks]**®

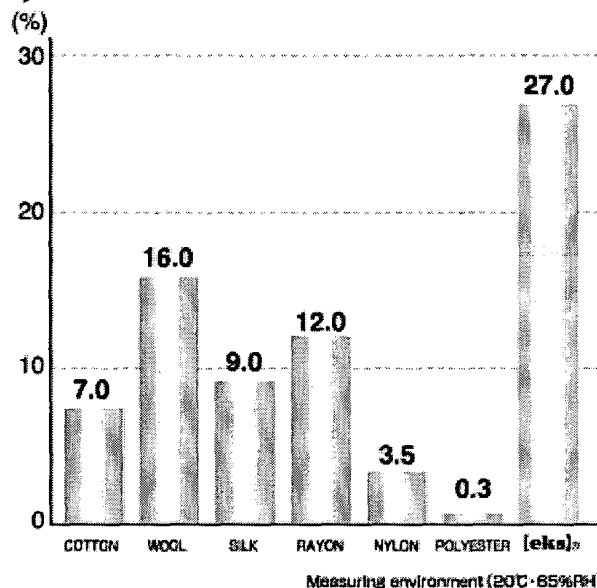
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**MOISTURE ABSORPTION**

[eks]® absorbs much more moisture than other fibers. It means that [eks]® generates much more heat, because heat generating ability is in proportion to moisture absorbing ability.

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